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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,651	12/27/2004	Stephen J. Bennison	AD6898USPCT	7406
7590 07/20/2007 E I du Pont de Nemours & Company Legal Patents Wilmington, DE 19898			EXAMINER WENDELL, MARK R	
			ART UNIT 3609	PAPER NUMBER
			MAIL DATE 07/20/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/519,651		BENNISON ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Mark R. Wendell		3609	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 5-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/30/2007 and 3/20/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

Claims 5-15 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. If, in further prosecution, claim 4 is found allowable, claims 5-15 would need to be cancelled because they fail to limit claim 4.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claimed inventions should be written as to distinctly claim the

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metes and bounds of the invention, not merely stating the system should be constructed as shown in a specific figure.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Delassus (EP0034089). Delassus illustrates in Figure 2 (and in col. 3, line 5- col. 5, line 5) a glazing system comprising:

- A polymer interlayer (6);
- A sheet of glass (4);
- A receptor (10) for attachment means (Figure 4);
- An attachment means (Figure 4) where the polymer interlayer (6) is bonded on one surface to the sheet of glass (4) and the receptor (10) is adhesively bonded to the glass (4) by the polymer interlayer (6) such that the receptor (10) is positioned to mechanically accept the attachment means (Figure 4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delassus (EP0034089) in view of Bennison et al. (WO 9958334). It is described above what is disclosed by Delassus, however Delassus does not teach the properties of the interlayer material and composition. Bennison discloses on Page 3, lines 34, an interlayer comprising:

- A thermoplastic polymer composition having a Storage Young's Modulus of 100-1,000 Mpa;

And an interlayer consisting of:

- A water insoluble salt of a copolymer of ethylene and methacrylic acid or acrylic acid containing 14-28% by weight of acid and having about 20-60% by weight of the acid neutralized with sodium, zinc, or magnesium ion and the ionomer resin having a melt index of about 0.5 – 50.

The examiner notes that Bennison also uses the disclosed interlayer material as a glazing system as bonding interlayer between two layers of glass. It would have been obvious to one having ordinary skill in the art at the time of invention to modify the

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direct-point attachment glazing system of Delassus with the interlayer of Bennison in order to maintain the integrity of the laminate after sustaining repeated or prolonged stress after glass breakage (Abstract of Bennison).

Regarding claims 4-15, as best understood by the examiner, the claimed subject matter is shown in Figures 2 and 3 of Delassus. The examiner notes that Figures 2 and 3 of Delassus illustrate the receptor extending into a sheet of glass and into laminate layer similar to Figures 1-11 of the application.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoxon et al. (US 4680206) teaches a sealed double glazing unit. Francis (US 4500572) and Francis (US 4552790) both teach a structural spacer glazing with connecting spacer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Wendell whose telephone number is (571) 270-3245. The examiner can normally be reached on Mon-Fri, 7:30AM-5PM, Alt. Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on (571) 272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor Batson  
Supervisory Patent Examiner  
Art Unit 3609

MRW  
July 16, 2007